Considerable discussion ensued on the part of Drs. Bell, Gross, Coates, F. Bache, H. Hartshorne, Hays, Jewell and Levick, upon this case, and upon the use and effects of large doses of the subnitrate of bismuth.

From this it appeared that, although all the Fellows present had been for several years accustomed to prescribing large and small doses of the preparation, and often for considerable periods, no symptom of arsenical irritation had ever been observed. The only unpleasant effect noted was the slight temporary discomfort which is well known to occur in some peculiarly susceptible patients, or from its long continued administration.

Dr. LEVICK, among others, referred to a case of phthisis, observed by him several years ago at the Pennsylvania Hospital, in which, on account of an obstinate diarrhœa, twenty grains of subnitrate of bismuth were given four times a day during the last two weeks of the patient's life. At the autopsy, the bismuth was found lining the whole length of the alimentary canal. This observation accorded with common experience; and, although affording no evidence of mischievous operation in this particular case, it had awakened his attention, and had ever since induced him to be more cautious and reserved in the resort to the large doses of the remedy which have been prevalent for some years past.

*Sickbed.*—Dr. ADDINELL HEWSON exhibited a model of a *sickbed* which he had devised and had had in use for some time. He remarked that it was a contrivance which could be readily adjusted to any ordinary bedstead without cutting or disfiguring it in the least. A board (AB, Fig. 1), 15 or 18 inches broad, and of sufficient length, is to be substituted for three or four of the slats forming the bottom of the bedstead. The ends of this board (A and B) should be cut so as to fit in the mortises originally made in the sides of the bedstead for the slats. In the centre of this board there should be an oval hole (C) 10 by 7 inches—its long diameter corresponding to the length of the bedstead. To the upper and lower borders of this board there should be secured strips DE and FG, extending between the sides of the bedstead. These strips should have grooves near their lower borders, and running their full length as seen on FG for the tray containing the bedpan to slide in. They (the strips) should have a depth sufficient to make the plane of these grooves below the plane of the sides of the bedstead. To the bottom of the board (substituted for the slats) there is to be hinged a trap-door H, to which an oval and somewhat conical pad is to be secured. This door should have a length equal to a little over one-fourth the width of the bedstead, and a breadth of twelve inches. It may be made of one inch stuff, and should then have secured, at equal distances on its under surface, two or three strips an inch broad, and with a depth sufficient to bring their lower surface (when the door is shut up), on a level with the upper edge of the grooves in the side-pieces, or the upper surface of the tray. These strips should terminate in a cross-piece at the far end of the door, and this last piece should extend an inch on either side beyond the door.

Fig. 1.

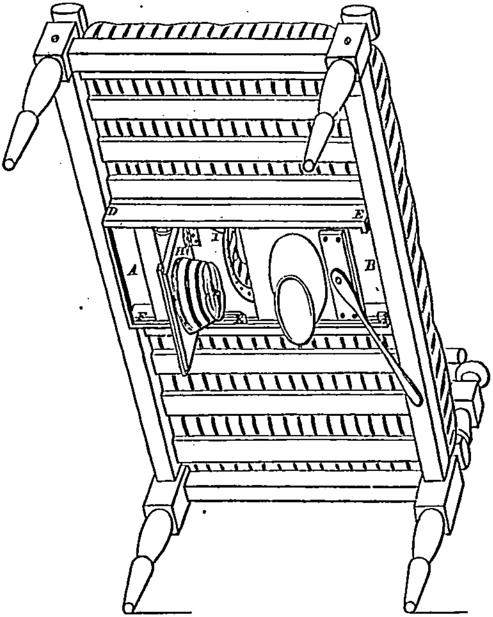
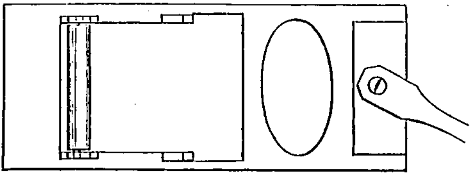


Fig. 2.



A tray (Fig. 2) of sufficient width to slide in the grooves of DE and FG, Fig. 1, should be made of one inch stuff, and have a length equal to five-eighths the width of the bedstead. This tray should have in it an oval hole 10 by 7 inches for the pan, and a square hole fully equal in length and breadth to the door, save at the end near the hole for the pan—here this square opening should be increased in width by the removal from either corner of a piece 1 in. by 2½ in., so as to allow the jutting ends of the cross-piece attached to the door to fall through as the pan is pushed towards the hole in the bed, or to rise up above the tray when it is desired to remove the pan and replace the plug. To close up the door, and thus replace the plug in the mattress, without any friction or jarring, a wooden roller of 2½ inches diameter should be secured to the under surface of the tray at the far end of the square opening, and at such a distance from the notches for the escape of the cross-piece of the trap-door, as will be equal to two-thirds the length of the door. The tray is to be moved by a handle attached to it by a pivot.

For the purpose of preventing the attendant from pushing or pulling the tray too far in either direction, stops should be provided, such as are indicated at DE and FG. Thus, at DE, there is a strip extending between the cleats, which will check the tray in that direction by the roller striking against it. Then the tray cannot be drawn out too far by the two little points on the bottom of the tray, at I and K, infringing on the stops indicated at E and G.

These last checks allow of the tray being drawn out sufficiently far from beneath the bed for the removal of the pan, and when the tray is drawn out this far, the trap-door is supported up in its place by the jutting ends of the cross-piece resting on the distant end of the tray. These jutting ends continue to support the door, as the tray is pushed in, until it is pushed so far as to bring the notches, in the square opening, beneath these ends, when all support is removed from the door, and it falls rapidly by its own weight; then, by continuing to push the tray inwards, the pan is brought beneath the opening in the bed.

A hole should be made in the mattress to correspond with that in the board. It should be oval, and measure 10 by 6 inches on the upper surface. The far side of this hole (from the hinges of the door) should be bevelled so that it will measure in the lower surface 10 by 7 inches. To prevent the weight of the patient pressing the mattress over into this opening, the edge of the hole in the board should be bound round with tin, jutting 1½ inch above its upper surface.

The apparatus will work best when the hinges of the door are as far as possible from the hole—and the plug placed as near as it can be to the free end of the door. The plug will thus be made to describe the arc of the largest circle possible in the swinging of the door, and will therefore not require to be bevelled as much as it would if placed in the centre of the door, and the door hinged nearer to the opening. The bevelling of the plug and of the hole in the mattress is only required on one side—the side towards the handle of the tray—and if this bevelling is made to correspond with the arc of the circle described by the upper and far edge of the plug, the plug will fit with great accuracy in the opening. This plug should be secured firmly to the door either by being tacked to it, or fastened by tapes passed through holes provided for the purpose.

Dr. H., after describing it, said that previous to devising this bed, he was not aware of the existence of any other similar contrivance or convenience.

The bed in use at the Pennsylvania Hospital, with which he and probably most of the Fellows of the College were familiar, possessed in his opinion but little, if any, convenience over an ordinary bed. This hospital bed has a round hole in it of 10 inches diameter, under which a pan is slid on cleats provided for the purpose, and this hole has to be filled up by a plug introduced from above. The patient must therefore be subjected to as much inconvenience, and be moved as much in attending to the calls of nature on it, as he would be in using a bedpan on an ordinary bed. Then, again, the hole is so large and so imperfectly filled by the plug, that the patient invariably sinks down into it, and soon wears away the mattress around the edge, if he is allowed to remain on it for any considerable time. Thus he very soon ceases to be lying on a level surface—a very great *desideratum* in the treatment of most fractures of the lower extremity, and in the prevention and management of bed sores in cases of long or exhausting illness. Dr. H. had recently seen, in the wards of the Pennsylvania Hospital, a mattress worn away in this manner to the thickness of only one inch, and it had originally measured three and a half inches. A patient confined on such a bed must therefore be raised up, if he is lying over the hole, for the removal and replacing of the plug, every time he has occasion to use the chamber; or be slid over the hole, and away from it, if it is desired to obviate the inconvenience of rendering the surface of the bed uneven. In either instance, the patient must be often subjected to considerable inconvenience, and in cases of fractures of the thigh-bone treated by the straight apparatus, the dressing must always be disturbed by such movements.

To obviate such inconveniences, he thought the contrivance which he exhibited would prove of great value. Indeed, in the case (one of excision of the hip-joint) for whose special benefit he had devised the bed, it had proved pre-eminently successful. It had been the source of the greatest comfort and convenience to both the patient and her attendants.

Making the hole oval instead of round, and binding its edge with tin, Dr. H. has found sufficient to prevent the patients sinking into the opening whilst using the chamber, and to effectually avoid any unevenness being produced in the surface of the mattress.

Dr. H. then referred to two ingenious contrivances for the same purpose, with which he had but very recently become acquainted. These were the sickbed of Dr. J. Rhea Barton, and the machine-bed of Dr. B. H. Coates, which are figured and described in the 5th and 9th volumes of the *Eclectic Repertory*. In both these contrivances (which he has learnt from their respective authors have proved very efficient), the removal of a plug in the mattress, and the placing of a pan under the opening, are effected in a similar way to that adopted by him; but in both of these, and especially in Dr. Coates', Dr. H. thought there would be much more friction, and consequently jarring of the bed, and splashing of the contents of the pan, than with the mechanism which he employed.

Dr. Coates felt called upon to congratulate himself, and, indeed, the College, upon meeting with so honourable an inventor as Dr. Addinell Hewson, in reference to the manner in which the latter referred to and exhibited the resemblance of his fracture bed to that of Dr. Coates, and exhibited the publication and plate of this last. (*Eclectic Repertory*, 1818, vol. ix. p. 544.) Dr. C. did not, however, see the defect in solidity of support to which his own invention was obnoxious in comparison with that of Dr. A. H. The trapdoor supporting the cushion of Dr. A. H. rested on two jutting points of wood: the cushion of Dr. B. H. C. on three thicknesses of board, one oval and filling the opening in the bottom of the frame of the bedstead, one falling by a hinge, and similar to the trap of Dr. A. H., and one forming part of the slide; and this last on strong cleats. To the adjustment of these it was necessary for the surgeon to attend. In fact, it was the same experience with that of Dr. A. H., and a desire to achieve this very solidity, that gave rise to the invention.

The history of this contrivance was soon told. In 1814 and 1815, the injuries received by men with fractures of the thigh, and other severe lesions near the ilio-femoral joint, when moved for the purpose of permitting the evacuation of the bowels, together with a consequent liability to costiveness, became so apparent, in the Pennsylvania Hospital, as to induce the invention of Dr. J. Rhea Barton. (*Eclectic Repertory*, vol. v. p. 235.) During the use of this for a year or two, Dr. Coates observed that the ropes by which the pressure was sustained yielded somewhat to long-continued extension, and that the nates of the patient consequently pressed against the edge of the perforation in the mattress, and sometimes came in contact with that of the perforated board below. Ulceration was of course occasionally the consequence; and this the more so, in proportion to the immobility of the parts, and, consequently, to the debility of the patient, and the severity of the injury he had sustained. With a view to obviate this, the apparatus figured in the plate exhibited to-night by Dr. A. Hewson, was invented; and it was attempted to secure a firm and continuous support by means of uniform and strong wooden boards and cleats, the bottom of the bedstead being made of wood.

The bedsteads and parts affixed being made in a substantial manner, continued in use for a long period; but when they became ruinous, iron bedsteads had been introduced extensively into the hospital, and the care of the elder Dr. Caspar Wistar, of Arch Street below Eighth, and of Byberry, was employed to adapt a convenient machinery to the new framework. In doing this, Dr. Wistar employed very similar cleats, tilting-piece, slide, and rod, but relinquished the approximation of the handle to the patient's right hand, and the protrusion of the pan towards the foot of the bed, deeming a transverse movement more convenient. Dr. C. was not aware that this modification was ever published.

*Fractures of the Scapula.*—Dr. Neill exhibited to the College a specimen of diseased scapula which had been mistaken for one of fracture. There was